

## **FRUIT AVENUE PLUME SUPERFUND SITE**

**Albuquerque, NM**

**EPA Region 6**

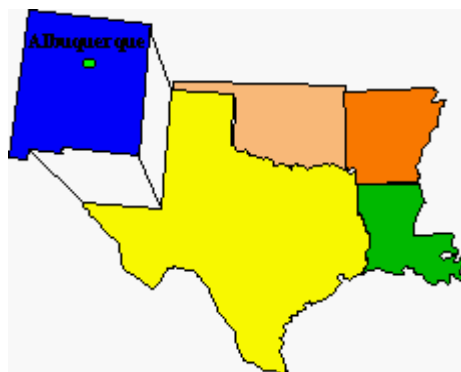
**EPA ID# NMD986668911**

**Site ID: 0604068**

**Hazard Ranking System (HRS) Score: 50**

**State Congressional District: 1**

**Fact Sheet Updated: July 2004**



### **SITE DESCRIPTION**

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**Location:** The Fruit Avenue Plume Site is located within the city limits of Albuquerque, Bernalillo County, Central New Mexico.

**Setting:** The contamination is contained in an aquifer underlying a portion of downtown Albuquerque, predominantly in the central business district.

The suspected primary source of the trichloroethene (TCE) is a defunct dry cleaning facility, "Elite Cleaners," which operated from approximately 1940-1970. The estimated size of the plume is 2/3 mile long, 550 to 1300 feet wide, and at least 544 feet deep.

**Population:** There are 187,327 people who receive their drinking water from wells within a four-mile radius of the source site. Within one mile of the site, the total population is approximately 6,000, a large percentage of which are workers, not full-time residents. There are two hospitals and two City of Albuquerque municipal wells located 1 to 1 3/4 miles from the source site.

### **Current Site Status:**

Work is scheduled to begin at the Fruit Avenue site in late July or early August 2004. The construction will occur in two phases. The first phase of the treatment system will be installed on the eastern part of the site. EPA will begin to install piping and an extraction well for a pump and treat system. The treatment system will go in a newly constructed building in downtown Albuquerque. Remediation of TCE and PCE contaminants are the chemicals of concern. Construction is expected to take three to four months to complete. Phase II remediation is expected to start in late 2005 or early 2006 as additional funding becomes available.

### **Site Costs:**

Fruit Avenue Plume began an aggressive schedule with the remedial action (RA) beginning in October 2003 with an expected completion date of August 2004. In December of 2003 EPA discovered that the original budget of \$5.8 million for implementing the RA was inadequate and that costs had risen to \$16 million. Fruit Avenue cost increased due to the following:

***No Competitive Bids:*** Attempt to get competitive bids failed because the bonding market had gotten more restrictive. The bonding market made it hard for Superfund contractors to

get bonded. As a result EPA got an unexpectedly low number of actual bids.

***Bonding License, Memorandum Of Understanding (MOU), Access Agreements and Permit Requirements*** : All of these factors were unforeseen costs during the cost estimate during the Remedial Design (RD). Stakeholders requirements were incorporated into the RA work plan. These requirements include obtaining access agreements, additional sampling activities, leasing land for equipment staging, and additional insurance requirements imposed by the City and the railroad.

**Services during construction (SDCs) were not included in the RD cost estimate:** The written assumption in the RD cost estimate that these costs were not included. Since these costs were not provided at the time of the RD they were omitted. The costs should have been included.

**Certain subcontract costs were underestimated or omitted:** Actual bid costs submitted under the RA were significantly higher than RD estimates. Several cost elements were omitted due to error.

**Additional growth of the scope of work:** Nature and extent of the contamination is much larger than the original September 2001 Record of Decision (ROD). The RD was redesigned to address and capture more of the contaminated plume.

**New Mexico Gross Receipts Tax:** It was assumed that the Gross Receipts Tax would not apply to this project because it is a Federal cleanup. Normally, the Federal government is exempted from paying these taxes when a federal program is being implemented in a state. The gross receipts tax is a tax on the contractor doing work in the state. These costs were brought to light during the construction of the RA.

The remedy costs in the September 2001 ROD was estimated at \$5.8 million. The components of the remedy included soil vapor extraction (SVE), pump and treat, hot spot treatment of shallow and intermediate ground water contamination and long term ground water monitoring. The interim remedy will be implemented in two phases. Phase 1 is expected to resume in early May 2004. The remedy will cost approximately \$5.8 million and will consist of a pump and treat remedy with an air stripper. The construction period is expected to last 6 months and will be fully operational and functional to reduce contaminants concentrations in the groundwater. The construction of this system on the east side will be protective of the City's drinking water well fields which are located 1 mile east of the site.

- EPA has spent approximately \$2.3 million on the RA and will spend \$3.5 million in 2004 for the Phase 1 remedy.
- If EPA is able to secure funding in the amount of \$12 million, the second phase of the project will be constructed on the western lobe in year 2005. The remedy will include a soil vapor extraction (SVE) system and restoration of the groundwater table. The construction is expected to take one year to complete.

## WASTES AND VOLUMES

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The primary contaminant of concern is TCE, a chlorinated solvent, found at levels up to 90 micrograms per liter ( $\mu\text{g/L}$ ) in the groundwater. The Maximum Contaminant level (MCL) that is allowed under the Safe Drinking Water Act is 5  $\mu\text{g/L}$ . Tetrachloroethene (PCE), cis-1,2-Dichloroethene (cis-DCE), and trans-1,2-Dichloroethene (trans-DCE) are also found in some areas of the groundwater plume, but these contaminants are below their respective MCLs.

Chlorinated solvents are heavier than water and readily sink in groundwater. An exact or calculated volume of the chlorinated solvent (TCE) released into the groundwater at the former site of Elite Cleaners is unknown at this time. However, very small amounts of these chemicals can contaminate large volumes of soil and groundwater.

The area of contamination consists only of the subsurface soils and groundwater. Therefore, the ground surface conditions are safe for people who live, work, and visit the area in the immediate vicinity of the Site.

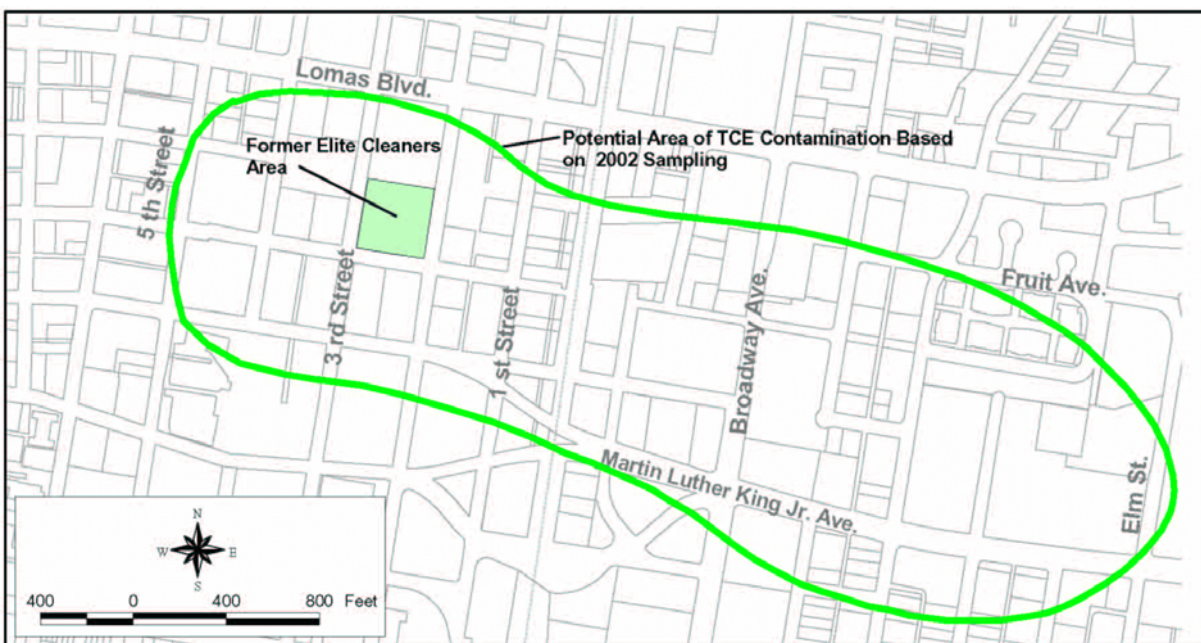
## NATIONAL PRIORITIES LIST

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NPL Inclusion Proposal Date:	July 22, 1999
NPL Inclusion Final Date:	October 23, 1999
NPL Deletion Proposal Date:	n/a
NPL Final Deletion Date:	n/a

## SITE MAP

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## SITE HISTORY

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- 1940-1972: The Site operated as a dry cleaning facility.
- 1989: Sight Discovery - The City of Albuquerque Environmental Health Department (AEHD) detected TCE in the Coca-Cola Bottling Plant well in downtown Albuquerque during a routine sampling effort.
- December 7, 1989: The New Mexico Environment Department (NMED) conducted a Preliminary Assessment and completed a report entitled, "PA Narrative of the Albuquerque Industrial Center." The objective of the PA was to identify potentially responsible parties (PRPs) and remove underground tanks once used for chlorinated hydrocarbon containment at the Elite Cleaner's site.
- October 15, 1990: The NMED conducted a Screening Site Inspection (SSI) of the Elite Cleaners site, thought to be a likely source of the TCE groundwater contamination, and completed a report of the investigation entitled, "Screening Site Inspection of Elite Cleaners." The objective of the SSI was to install monitoring wells and determine the extent of the groundwater TCE plume.
- 1993: Environmental Consultant, Dames and Moore, Inc., conducted a Phase II Environmental Site Assessment in downtown Albuquerque near the former Norwest Bank building, collecting more information concerning soil and groundwater TCE contamination. In February, May and August of 1993, the NMED conducted an Expanded Site Investigation (ESI) of the former Elite Cleaners site.
- September 21, 1994: The NMED completed the ESI report entitled, "Expanded Site Inspection of the Elite Cleaners Site."
- February 10, 1999: A Background Investigative (BI) report was completed by the NMED to further research possible source areas of the TCE groundwater contamination and delineate the extent of the TCE groundwater plume.
- July 1999: The Fruit Avenue Plume Site was proposed to be listed as a Federal Superfund Site on the National Priority List (NPL) by the Environmental Protection Agency (EPA).
- October 1999: The Fruit Avenue Plume Site was added to the NPL as a State lead Superfund Site with the cooperation of the EPA, the NMED, and the City of Albuquerque.
- March 2001: The Remedial Investigation (RI) report was finalized for the Site. The former Elite Cleaners was identified as the primary source of contamination, and the extent of the TCE groundwater plume was delineated.
- June 2001: The Feasibility Study (FS) report was finalized for the Site. This report details the alternatives that were evaluated as possibilities for site remediation. The Proposed Plan, which discussed the most viable alternatives for site remediation was issued on June 27, 2001.

- A public comment period on the Proposed Plan was held from June 29, 2001 through July 30, 2001.
- The Record of Decision was issued on September 27, 2001.
- A public meeting was held in August 26, 2003, to discuss the Remedial Action.
- October 2003: Construction of Remedial Action
- December 2003: Remedial Action was suspended due to cost growth

## **HUMAN HEALTH AND ECOLOGICAL RISK ASSESSMENT** ---

There is a potential for elevated health/ecological risk levels associated with the two types of chlorinated hydrocarbon compounds, TCE and PCE, involved in dry cleaning spot removal and machine shop/industrial equipment degreasing activities.

TCE and PCE are the leading concerns at this site because they are known carcinogens recognized by the Resource Conservation and Recovery Act (RCRA).

### **Other Health Considerations:**

- The Coca-Cola production well had to be removed from service in 1989 when TCE levels exceeded its Maximum Contamination Limit (MCL) of 5.0 µg/L.
- The St. Joseph Hospital well was removed from service in December of 1996 when TCE levels approached the MCL. In 1997, this well exceeded the MCL for TCE.
- The Presbyterian Hospital well showed levels of TCE below the MCL in 1999.
- The City of Albuquerque municipal well, Yale 1, exhibited trace levels of TCE and PCE in 1999. It is unknown whether the contamination source of Yale 1 is from the Site; however, Yale 1 well is located down gradient of the Site.

## **RECORD OF DECISION** ---

Record of Decision Signed: September 27, 2001
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The major components of the Selected Remedy, Soil Vapor Extraction plus Hot Spot Treatment and Shallow, Intermediate, and Deep Zone Restoration through Pump and Treat Technology with a Reinjection Component, consist of:

- Soil Vapor Extraction of contaminants from soil located on the source area property,
- Remediation of contamination Hot Spots in the shallow and intermediate ground water that underlies the source area property by injecting either a bioremediation additive or a chemical oxidant into the subsurface in order to degrade the contaminants of concern in place,

- Extraction and treatment of contaminated shallow, intermediate, and deep zone ground water by using a pump and treat system consisting of air stripping and granulated activated carbon, and by re-injecting a portion of the treated water,
- Placement of a restrictive covenant on the source property requiring that the asphalt cap remain on the source property until remediation goals for the soil are met,
- Implementation of ground water use restrictions until remediation goals for ground water are met, and
- Annual ground water monitoring to assess the extent of contamination and risks to human health.

## TECHNICAL ASSISTANCE GRANT ---

- Availability Notice:
- Letters of Intent Received:
- Final Application Received: 5/15/02
- Grant Award: 5/26/02 - 5/27/05
- Budget Periods: 5/26/02 - 5/27/05
- Grantee: Downtown Action Team  
Luisa Casso, President  
309 Gold, SW  
Albuquerque, NM 87102
- Technical Advisor: R.T. Hicks, 4665 Indian School Rd, Albuquerque, NM 87110
- Current Status: TAG ends as of 5/27/05. Compliance review was conducted in May 2004 and TAG is in compliance. All TAG funds have been expended.

## SITE CONTACTS ---

EPA Remedial Project Manager:	Terry Roundtree	214-665-6518 or 1-800-533-3508
Site Attorney:	James Costello	214-665-8045 or 1-800-533-3508
Community Involvement:	Tim Wilson	214-665-2248 or 1-800-533-3508
Technical Assistance Grant contact:	Beverly Negri	214-665-8157 or 1-800-533-3508
NMED Project Manager:	David Mayerson	505-827-0184
EPA Regional Public Liaison:	Arnold Ondarza	1-800-533-3508
Site Repository:	Albuquerque Public Library-Main Branch 501 Copper Avenue NW Albuquerque, New Mexico 87102 (505) 768-5140	

## **REALIZED CLEANUP BENEFITS**

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- Remediation of the contaminated media will reduce the health and ecological risk associated with the contaminants.
- Although only the sub-surface earth material and ground water are contaminated with TCE and PCE, the total land value will rise and the cleanup will encourage future business investments in the downtown Albuquerque business district.